

ABSTRACT OF THE DISCLOSURE

A carrier supporting titania thereon is further caused to carry a metal compound thereon. This metal compound is hydrogen reduced in a heating atmosphere at a first treatment temperature, then oxidized in a heating atmosphere at a second treatment temperature not higher than the first treatment temperature to thereby obtain a photocatalyst. In this event, metal is released from an extremely strong reduction state and thus highly dispersed on the catalyst in the form of fine particles so that high activity of the catalyst can be obtained. Then, by purifying gas while feeding light and heat to the photocatalyst by, for example, blacklights, a volatile organic compound such as acetaldehyde can be decomposed at a high decomposition rate through cooperation between photocatalytic activity and thermal catalytic activity of the photocatalyst.